Executing the logoff script...

=> LOG H

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.95	17.73
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY -0.69	SESSION -1.38

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:47:26 ON 27 APR 2004

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1204jxv

#### PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \* \* SESSION RESUMED IN FILE 'CAPLUS' AT 15:38:05 ON 27 APR 2004 FILE 'CAPLUS' ENTERED AT 15:38:05 ON 27 APR 2004 COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.95	17.73
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.69	-1.38
=> file reg COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY 7.38	SESSION 18.16
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.69	-1.38

FILE 'REGISTRY' ENTERED AT 15:38:45 ON 27 APR 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 APR 2004 HIGHEST RN 676591-92-7 DICTIONARY FILE UPDATES: 25 APR 2004 HIGHEST RN 676591-92-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting  ${\tt SmartSELECT}$  searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=>

Uploading C:\Program Files\Stnexp\Queries\10692735.str

10 10 10 10 11 12 13

chain nodes : 10 11 12 13

ring nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

7-10 8-11 11-12 12-13

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9

exact/norm bonds :

5-7 6-9 7-8 7-10 8-9 8-11 12-13

exact bonds :

11-12

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

G1:Cy,Ak

Connectivity:

11:2 E exact RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS

11:CLASS 12:CLASS 13:CLASS

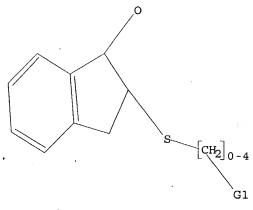
L5 STRUCTURE UPLOADED

=> d

L5 HAS NO ANSWERS

L5

STR



G1 Cy,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 15

SAMPLE SEARCH INITIATED 15:39:02 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 1792 TO ITERATE

55.8% PROCESSED 1000 ITERATIONS

3 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS:

33301 · TO 38379

PROJECTED ANSWERS:

3 TO 246

L6 3 SEA SSS SAM L5

=> d scan

L6 3 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN 1H-Inden-1-ol, 5-azido-2,3-dihydro-2-(methylsulfonyl)-, acetate (ester)

(9CI)

MF C12 H13 N3 O4 S

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

= >

Uploading C:\Program Files\Stnexp\Queries\10692735.str

10 10 10 11 12

chain nodes:

10 11 12 13

ring nodes:

1 2 3 4 5 6 7 8 9

chain bonds:

7-10 8-11 11-12 12-13

ring bonds:

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9

exact/norm bonds:

5-7 6-9 7-8 7-10 8-9 8-11 12-13

exact bonds:

11-12

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6

G1:Cy,Ak

Connectivity:
11:2 E exact RC ring/chain
Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS

### L7 STRUCTURE UPLOADED

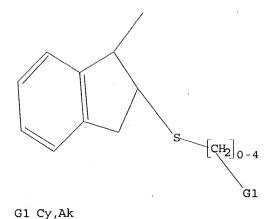
=> que L7

L8 QUE L7

=> d

L8 HAS NO ANSWERS

L7 STR



Structure attributes must be viewed using STN Express query preparation. QUE ABB=ON PLU=ON L7 L8

=> s 17

SAMPLE SEARCH INITIATED 15:39:58 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -1792 TO ITERATE

55.8% PROCESSED 1000 ITERATIONS 1 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

> BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 33301 TO

PROJECTED ANSWERS:

L9 1 SEA SSS SAM L7

=> d scan

REGISTRY COPYRIGHT 2004 ACS on STN

Acetamide, N-[2-[(2,3-dihydro-1-hydroxy-1H-inden-2-yl)thio]phenyl]-,

trans- (9CI)

C17 H17 N O2 S

Relative stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

=> s 17 full FULL SEARCH INITIATED 15:40:15 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 35757 TO ITERATE

100.0% PROCESSED 35757 ITERATIONS SEARCH TIME: 00.00.01

71 ANSWERS

L10

71 SEA SSS FUL L7

=> d scan

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1H-Inden-1-ol, 2-[(4-fluorophenyl)thio]-2,3-dihydro-, trans- (9CI)
MF C15 H13 F O S

Relative stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1H-Inden-1-ol, 2,3-dihydro-2-[(4-methoxyphenyl)thio]-, cis- (9CI)
MF C16 H16 O2 S

Relative stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN  $\beta$ -D-Glucopyranoside, (1R,2S)-2,3-dihydro-1-hydroxy-1H-inden-2-yl 2,3,4,6-tetrakis-O-[(3-methylphenyl)methyl]-1-thio- (9CI) MF C47 H52 O6 S

Absolute stereochemistry.

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Acetic acid, thio-, S-1-hydroxy-2-indanyl ester (7CI) MF C11 H12 O2 S

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN 
IN Glycine, N-[S-(1,2-dihydro-2-hydroxy-3-methylbenz[j]aceanthrylen-1-yl)-N-L-  $\gamma$ -glutamyl-L-cysteinyl]- (9CI)

MF C31 H31 N3 O7 S

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Acetamide, N-[2-[(2,3-dihydro-1-hydroxy-1H-inden-2-yl)thio]phenyl]-, cis(9CI)

MF C17 H17 N O2 S

Relative stereochemistry.

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1H-Inden-1-ol, 2,3-dihydro-2-[(3-methylphenyl)thio]-, trans- (9CI)
MF C16 H16 O S

Relative stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN  $\beta$ -D-Glucopyranoside, (1R,2S)-1-(acetyloxy)-2,3-dihydro-1H-inden-2-yl 2,3,4,6-tetrakis-0-(phenylmethyl)-1-thio- (9CI)

MF C45 H46 O7 S

Absolute stereochemistry.

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Hydroperoxide, 2-(phenylthio)-1-indanyl (6CI, 7CI) MF C15 H14 O2 S

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN L-Cysteine, S-(5-chloro-2,3-dihydro-1-hydroxy-1H-inden-2-yl)-, methyl ester (9CI)
MF C13 H16 Cl N O3 S

Absolute stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Hydroperoxide, 2-(2-naphthylthio)-1-indanyl, compd. with

1,4-diazabicyclo[2.2.2]octane (7CI)

MF C19 H16 O2 S . 1/2 C6 H12 N2

CM 1

CM 2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L10. 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Thiocyanic acid, 1-(acetyloxy)-2,3-dihydro-1H-inden-2-yl ester, trans(9CI)

MF C12 H11 N O2 S

Relative stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN  $\beta$ -D-Glucopyranoside, (1S,2R)-2,3-dihydro-1-hydroxy-1H-inden-2-yl

2,3,4,6-tetrakis-O-(phenylmethyl)-1-thio-(9CI)

MF C43 H44 O6 S

Absolute stereochemistry.

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1H-Indene, 2,3-dihydro-1-methoxy-2-(methylthio)-, trans- (9CI)
MF C11 H14 O S

Relative stereochemistry.

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1H-Inden-1-ol, 2-(2-benzoxazolylthio)-2,3-dihydro- (9CI)
MF C16 H13 N O2 S

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

Relative stereochemistry.

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

Relative stereochemistry.

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN 2H-Pyran-2-one, 3-[1-[[(1R,2S)-2,3-dihydro-1-hydroxy-1H-inden-2-yl]thio]-3-methylbutyl]-6-(3,5-dimethylphenyl)-4-hydroxy-, rel- (9CI)

MF C27 H30 O4 S

Relative stereochemistry.

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Methanesulfonamide, N-[2,3-dihydro-1-hydroxy-6-phenoxy-2-(phenylthio)-1Hinden-5-yl]-, cis- (9CI)
MF C22 H21 N O4 S2

Relative stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1H-Inden-1-ol, 5-chloro-2,3-dihydro-2-(methylthio)- (9CI)
MF C10 H11 Cl O S

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L10 71 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1H-Indene, 1-ethoxy-2,3-dihydro-2-[(2-nitrophenyl)thio]-, trans- (9CI)
MF C17 H17 N O3 S

Relative stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 156.26 174.42

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE

0.00 -1.38

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FILE COVERS 1907 - 27 Apr 2004 VOL 140 ISS 18 FILE LAST UPDATED: 26 Apr 2004 (20040426/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 110

L11

38 L10

=> s l11 and pharmaceut? 246583 PHARMACEUT?

L12

3 L11 AND PHARMACEUT?

=> d ibib abs hitstr 1-3

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:202618 CAPLUS

DOCUMENT NUMBER:

138:221365

TITLE:

Preparation of indan-1-ols as appetite depressants

INVENTOR(S):

Jaehne, Gerhard; Krone, Volker; Bickel, Martin;

Gossel, Matthias

PATENT ASSIGNEE(S):

Aventis Pharma Deutschland G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KI	DATE		APPLICATION NO. DATE											
WO 2003020696		96	A1 20030313			WO 2002-EP9206 20020817												
Ţ	W :	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	
						IL,												
	-					MA,												
						SD,												
						YU,												TM
]	RW:					MW,												
						DK,												
						BF,												
				TD,							•	•	•		•	•	•	
DE 10142667 A1						2003	0327		DI	E 20	01-1	0142	667	2001	0831			

US 2003114681 Α1 20030619 US 2002-231394 20020830 US 6657086 В2 20031202 US 2004068016 20040408 US 2003-665021 Α1 20030922 PRIORITY APPLN. INFO.: DE 2001-10142667 A 20010831 US 2002-231394 A3 20020830 OTHER SOURCE(S): MARPAT 138:221365

$$R^3$$
 $R^4$ 
OH
 $X-Y-R^5$ 
 $R^2$ 
 $R^1$ 
 $R^3$ 
 $R^4$ 
OH
 $R^3$ 
 $R^4$ 
 $R^4$ 
 $R^5$ 
 $R^6$ 
 $R^6$ 

AB Title compds. I [R1, R2, R3, R4 = H, halo, CN, etc.; X = S, SO, SO2; Y = (CH2)p; p = 0-3; R5 = CF3, alkyl, cycloalkyl] and their pharmaceutically acceptable salts were prepared For example, NaBH4 mediated reduction of 5-chloro-2-methylsulfonylindan-1-one, e.g., prepared from 2-bromo-5-chloroindan-1-one in 2-steps, provided indanol II. In milk consumption studies with female NMRI mice, indanol II exhibited very good anorectic effects, i.e., 50% decrease in milk consumption verses control.

IT 500910-95-2P 500910-98-5P 500911-00-2P 500911-04-6P 500911-05-7P 500911-08-0P 500911-10-4P 500911-11-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of indanols as appetite depressants) 500910-95-2 CAPLUS

CN 1H-Inden-1-ol, 5-chloro-2,3-dihydro-2-(methylthio)- (9CI) (CA INDEX NAME)

RN

GI

RN 500910-98-5 CAPLUS

CN L-Cysteine, N-acetyl-S-(5-chloro-2,3-dihydro-1-hydroxy-1H-inden-2-yl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 500911-00-2 CAPLUS

CN 1H-Inden-1-ol, 5-chloro-2,3-dihydro-2-(propylthio)- (9CI) (CA INDEX NAME)

RN 500911-04-6 CAPLUS

CN 1H-Inden-1-ol, 2-(2-benzoxazolylthio)-2,3-dihydro- (9CI) (CA INDEX NAME)

RN 500911-05-7 CAPLUS

CN 1H-Inden-1-ol, 2,3-dihydro-2-[(phenylmethyl)thio]-6-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 500911-08-0 CAPLUS

CN Valine, N-acetyl-3-[[2,3-dihydro-1-hydroxy-5-[(methylsulfonyl)amino]-1H-inden-2-yl]thio]- (9CI) (CA INDEX NAME)

RN 500911-10-4 CAPLUS

CN L-Cysteine, S-(5-chloro-2,3-dihydro-1-hydroxy-1H-inden-2-yl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 500911-11-5 CAPLUS

CN 1H-Inden-1-ol, 2,3-dihydro-2-[(1-methylethyl)thio]-6-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

8

ACCESSION NUMBER:

2003:202617 CAPLUS

DOCUMENT NUMBER: TITLE:

138:221364
Preparation of 2-fluoro-1-indanols and their use as

appetite depressants

INVENTOR(S):

Jaehne, Gerhard; Krone, Volker; Bickel, Martin;

Gossel, Matthias

PATENT ASSIGNEE(S):

Aventis Pharma Deutschland G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 49 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION: .

	PATENT NO.				KIND DATE				A.	PPLI	CATI	ON NO	ο.	DATE					
									-		- <b></b>		<del>-</del> -						
	WO	2003	0206.	95	A1		20030313			WO 2002-EP9203 20020817									
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	
			UA,	UG,	UΖ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM
		RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	BG,	
			CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	
			PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	ĠΑ,	GN,	GQ,	GW,	ML,	MR,	
			NE,	SN,	TD,	TG													
	DE	1014	2663		A:	1	2003	0327	-	D	E 20	01-1	0142	663	2001	0831			
	US	2003	1814	91	A:	1	2003	0925		U:	S 20	02-2	3141	В	2002	0829			
PRIO	RIT	APP	LN.	INFO	. :				1	DE 2	001-	1014	2663	A	2001	0831			
OTHE	R S	DURCE	(S):			MAR	PAT	138:3	2213	б4									
GI																			

$$^{
m OH}_{
m F}$$
  $^{
m SO}_2-{
m Me}$ 

III

Title compds. I [R1, R2, R3, R4 = H, halo, CN, etc.; X = S, SO, SO2; Y = AΒ (CH2)p; p = 0-3; R5 = CF3, alkyl, cycloalkyl; R9 = substituted alkyl or cycloalkyl, e.g. F, CO, CO2, etc.] and their pharmaceutically acceptable salts were prepared For example, fluorination of indanone II, e.g., prepared from 2-bromo-5-chloroindan-1-one in 2-steps, followed by NaBH4 mediated reduction provided fluoroindanol III. In milk consumption studies with female NMRI mice, indanol III exhibited very good anorectic effects, i.e., 46% reduction of milk consumption verses control.

500899-40-1P IT

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(drug candidate; preparation of fluoroindanols as appetite depressants) 500899-40-1 CAPLUS

1H-Inden-1-ol, 2-[(4-chlorophenyl)thio]-2-fluoro-2,3-dihydro- (9CI) CNINDEX NAME)

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CAPLUS COPYRIGHT 2004 ACS on STN L12 ANSWER 3 OF 3

ACCESSION NUMBER:

1980:639087 CAPLUS

DOCUMENT NUMBER:

93:239087

TITLE:

RN

Indanyl derivatives and pharmaceutical

preparations containing them

INVENTOR(S):

Schroeder, Eberhard; Rufer, Clemens; Boettcher,

Irmgard

PATENT ASSIGNEE(S): SOURCE:

Schering A.-G., Fed. Rep. Ger. Brit. UK Pat. Appl., 19 pp.

CODEN: BAXXDU

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

#### PATENT INFORMATION:

PA	TENT NO.	KIND	DATE	AP	PLICATION NO.	DATE			
GB	2025973	Α	19800130	GB	1979-26016	19790726			
DE	2833202	A1	19800214	DĖ	1978-2833202	19780727			
DE	2923937	A1	19810108	DE	1979-2923937	19790611			
DD	145101	С	19801119	DD	1979-214579	19790724			
PL	126816	B1	19830930	PL	1979-217384	19790725			
FI	7902347	A	19800128	FI	1979-2347	19790726			
FI	71306	В	19860909						
FI	71306	C	19861219						
DK	7903159	Α	19800128	DK	1979-3159	19790726			
DK	159269	В	19900924						
DK	159269	C	19910218						
. NO	7902474	Α	19800129	NO	1979-2474	19790726			
NO.	147560	В	19830124						
NO	147560	С	19830504						
FR	2433512	A1	19800314		1979-19301	19790726			
SU	965352	A3	19821007	_	1979-2789351	19790726			
$_{ m IL}$	57901	A1	19831130		1979-57901	19790726			
HU	29615	0	19840228	HU	1979-SE684	19790726			
HU	184679	.B	19840928						
AU	7949325	A1	19800207	AU	1979-49325	19790727			
ΑŰ	532405	B2	19830929						
JP	55020777	A2	19800214	JP	1979-95152	19790727			
-	63010696	B4	19880308						
ES	482918	A1	19800516		1979-482918	19790727			
ZA	7903854	Α	19800730		. 1979-3854	19790727			
	4244960	Α	19810113		1979-61779	19790727			
	78632	P	19820412		1979-98285	19790727			
	1124724	A1	19820601		1979-332665	19790727			
	242855	B2	19860515		1979-5235	19790727			
PRIORIT	Y APPLN. INFO.	:			78-2833202	19780727			
				DE 19	79-2923937	19790611			

GΙ

$$RZ$$
 $X$ 
 $R^{1}SO_{2}NR^{2}$ 
 $I$ 

AB Title compds. I [R = Ph or pyridyl optionally substituted by ≥1 halo, C1-4 alkyl, CF3; Z = O, S; R1 = C1-4 alkyl optionally substituted by ≥1 F or Cl; R2 = R1SO2 (R1 same as above), C1-6 acyl, H; X = (CH2)2, CH:CH, C(Z1)CH2 (Z1 = O, NOH, C1-4 alkoxyimino, phenylhydrazono, p-toluenesulfonylhydrazono), CHR3CH2 [R3 = OH, C1-6 acyloxy, R1SO2NH, R1SO3 (R1 same as above), NH2, C1-6 acylamino, cyano], CHR3CH(SOnR4) or C(Z1)CH(SOnR4) (n = 0, 1, 2; R4 = C1-4 alkyl, Ph optionally substituted by halo, C1-4 alkyl, NO2, CO2H; Z1, R3 same as above)] were prepared and showed antiinflammatory activity. Thus, N-(6-phenoxy-5-indanyl)methanesulfonamide was prepared from 5-bromo-6-nitroindan by sequential reaction with PhOH (CuCl-K2CO3, refluxing pyridine, 3 h), reduction (H/Raney Ni), and treatment with MeSO2Cl in pyridine at 0° and room temperature I showed superior activity to indomethacin, especially dissociation between

antiinflammatory and ulcerogenic activity. I barely inhibits the synthesis of prostaglandin. I also show herbicidal activity (no data).

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 75361-01-2 CAPLUS

CN Methanesulfonamide, N-[2,3-dihydro-1-hydroxy-6-phenoxy-2-(phenylthio)-1H-inden-5-yl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

# $\Rightarrow$ s C17 H17 N O2 S/mf and l11

## REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L14 651 L13

L15 1 L14 AND L11

=> d ibib abs hitstr

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1990:35781 CAPLUS

DOCUMENT NUMBER:

112:35781

TITLE:

Reaction of 2,2'-dithiodianiline with

2-alkyl-1,3-diketones. Synthesis and chemical behavior of some 2-acyl-2H-1,4-benzothiazines

AUTHOR (S):

Trapani, Giuseppe; Latrofa, Andrea; Reho, Antonia;

Liso, Gaetano

CORPORATE SOURCE:

Dip. Farm.-Chim., Univ. Bari, Bari, 70126, Italy

SOURCE:

Journal of Heterocyclic Chemistry (1989), 26(3), 721-4

CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: LANGUAGE:

Journal English

OTHER SOURCE(S):

CASREACT 112:35781

GΙ

The reaction of 2-H2NC6H4SSC6H4NH2-2 (I) with 2-alkyl-1,3-diketones to synthesize 2-acyl-2H-1,4-benzothiazines was studied. In the cases of I with RCOCHR2COR1 (II, RR1 = o-C6H4CH2CH2, R2 = Me; R = R1 = Ph, R2 = Me), the expected 2-acyl-2H-1,4-benzothiazines, i.e. III, were obtained, whereas the reactions of I with the 1,3-diketones IV (R3 = COMe) and II (R = Ph, R1 = R2 = Me) afforded the  $\alpha$ -ketosulfide IV (R3 = 2-AcNHC6H4S) and the 1,4-benzothiazine V, resp. The products III underwent the hydrolytic C2-C3 bond cleavage of the thiazine nucleus to give the  $\alpha$ -ketosulfides 2-R1CONHC6H4SCHR2COR. Such a hydrolytic process also explains the formation of IV (R3 = 2-AcNHC6H4S). V is formed through a rearrangement involving the 1,3-sulfur shift of the preformed 1,4-benzothiazine III (R = Ph, R1 = R2 = Me).

IT 124530-81-0P 124530-82-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and basic hydrolysis of)

RN 124530-81-0 CAPLUS

CN Acetamide, N-[2-[(2,3-dihydro-1-hydroxy-1H-inden-2-yl)thio]phenyl]-, cis-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 124530-82-1 CAPLUS

CN Acetamide, N-[2-[(2,3-dihydro-1-hydroxy-1H-inden-2-yl)thio]phenyl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

100461-51-6P 124530-84-3P IT

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

100461-51-6 CAPLUS RN

1H-Inden-1-ol, 2-[(2-aminophenyl)thio]-2,3-dihydro-, trans- (9CI) (CA CN INDEX NAME)

Relative stereochemistry.

RN124530-84-3 CAPLUS

1H-Inden-1-ol, 2-[(2-aminophenyl)thio]-2,3-dihydro-, cis- (9CI) CN NAME)

Relative stereochemistry.

### => s C16 H16 O2 S/mf and l11

#### REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L17 798 L16

L18 5 L17 AND L11

=> d ibib abs hitstr 3

L18 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1962:475774 CAPLUS

DOCUMENT NUMBER: 57:75774 ORIGINAL REFERENCE NO.: 57:15030e-i

TITLE: Hydroperoxides and sulfoxides

INVENTOR(S): Oswald, Alexis A.; Rupar, Charles B.; Greenwood,

Sydney H.J.

PATENT ASSIGNEE(S): Esso Research and Engineering Co.

SOURCE: 8 pp. DOCUMENT TYPE: Patent LANGUAGE:

Unavailable

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE US 3043824 19620710 US 19590928 · Co-oxidation of RSH with olefins or diolefins in the presence of O at 0° produced new sulfoxides and hydroperoxides. Ultraviolet light and hydroperoxides were found to be effective catalysts for the oxidation Thus, 20.2 g. n-C12H25SH and 10.4 g. styrene were dissolved in 150 cc. n-C7H16 in 500 cc. quartz bottle and irradiated with ultraviolet light (or hydroperoxides added). Air was passed through the solution via sintered glass and filtered after 0.5 hr. to give 18.7% 2-phenyl-2-hydroperoxyethyl n-dodecyl sulfide. Similarly prepared were 1-hydroperoxy-4-phenylthio-2butene, 1-hydroperoxy-4-(2- naphthylthio)-2-pentene, 2-hydroperoxy-4-(2naphthylthio) -2cyclopentene, and 4,7-methylene-5-(2-naphthylthio)-6hydroperoxy-4,5,6,7,8,9-hexahydroindene. The filtrate was treated with air 6 hrs. and filtered to give 9 g. 2-phenyl-2hydroxyethyl n-dodecyl sulfoxide (I), m. 107-9° (benzene-nheptane). The filtrate gave a mixture of isomeric I, m. 66-9°. Similarly prepared were the following sulfoxides, where R1 = C16H33CH(OH)CH2, R2 = p-MeC6H4, R3 = naphthyl, R4 = naphthylp-ClC6H4, R5 = PhCH(OH)CH2, R6 = PhCMe(OH)CH2, R7 = C12H25, and R8 =2-(1-hydroxyindanyl): PhSOCH2CH(OH)C10H21, m. 67-8°; PhSOR1, m. 51-2°; R2SOR1, m. 60-2°; R3SOR1, m. 88-90°; R4SOR1, m. 65-6.5°; R5SOPh, m. 123-30°; R5SOR3, m. 145-7°; R5SOR4, m. 156.5-8.5°; R6SOR3, m. 114-18°; R6SOR7, m. 47.5-8.5°; R8SOPh, m. 158-9° (decomposition); R8SOR2, 166-7.5° (decomposition); R8SOR4 m. 144-6°; R8SOR3, m. 149-50°; and R8SOR7, m. 107-9°. The hydroxy sulfoxide products of dicyclopentadiene-RSH co-oxidns. were useful as petroleum additives, antistatic agents, and pesticides. The OH group may be esterified with H2SO4 and converted to detergents. The hydroperoxides are useful as radical polymerization promoters and can be alkylated to give

steam-cracked naphtha and for removal of RSH from petroleum.

970-61-6, Hydroperoxide, 2-(2-naphthylthio)-1-indanyl

93434-18-5, 1-Indanol, 2-(p-tolylsulfinyl)- 93898-97-6,

Hydroperoxide, 2-(phenylthio)-1-indanyl

(preparation of)

RN 970-61-6 CAPLUS

CN Hydroperoxide, 2-(2-naphthylthio)-1-indanyl (6CI, 7CI, 8CI) (CA INDEX NAME)

surfactive agents. Co-oxidation can be utilized to remove dienes from

RN 93434-18-5 CAPLUS

CN 1-Indanol, 2-(p-tolylsulfinyl)- (6CI, 7CI) (CA INDEX NAME)

#### => d ibib abs hitstr 4-5

L18 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1962:73337 CAPLUS

DOCUMENT NUMBER:

56:73337

Journal

ORIGINAL REFERENCE NO.: 56:14179h-i,14180a-i,14181a-b

Organic sulfur compounds. VI. The effect of alkylamines on the course of the cooxidation of

mercaptans and indene

AUTHOR (S):

Oswald, Alexis A.; Noel, Fernand; Fisk, George

Imp. Oil Co., Sarnia, Can.

CORPORATE SOURCE: SOURCE:

Journal of Organic Chemistry (1961), 26, 3974-80

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE:

LANGUAGE: Unavailable

In the presence of alkylamines, mercaptans, and indene (I) were cooxidized by mol. O with a chain mechanism to form substituted 2-mercapto-1indanols, disulfides, and H2O, instead of substituted 2-mercapto-1-indanyl hydroperoxides. The initiation reaction forming the mercapto radicals could take place between alkylammonium thiolates and O. The change of the reaction products was due to the catalysis by the amines of the oxidation of mercaptans by substituted 2-mercapto-1-indanyl hydroperoxides. proposed that this catalytic action was important in the stabilization of some hydrocarbon fuels by alkylamines. In the cooxidn. expts., the O or air was introduced through a sintered glass inductor, mixture stirred, and the pressure kept slightly above atmospheric The reactions were followed by determining the decrease of the thiol concentration by potentiometric

titration of

samples with AgNO3. 2-(2-Naphthylthio)-1-indanyl hydroperoxide (II) (14.2 g.) in 2.5 l. PhMe, 6.6 g. benzenethiol (IIa), and 7.6 g. 1,1,3,3-tetramethylbutylamine (III) left 0.5 hrs., the solution evaporated in vacuo, at first 2-(2-naphthylsulfinyl)-1-indanol removed, then the solvent evaporated, and from the residue III and diphenyl disulfide removed by leaching with 2 60-ml. portions of heptane, and the product crystallized gave 5.2 g. 2-(2-naphthylthio)-1-indanol (IIIa), m. 141-3° (PhMe). IIa (13.2 g.) and 7.7 g. III in 250 ml. C6H6 treated with 19.4 g. 79% 2-phenylthio-1-indanyl hydroperoxide, the mixture stirred another hr. and evaporated, and the residue crystallized gave 5 g. 2-phenylthio-1-indanol (IIIb),

m. 103-4° (heptane). A yield of 4.2 g. (PhS)2 was also obtained in this experiment II (6.3 g.) in 25 ml. Et20 added slowly to 1.1 g. triethylenediamine in 10 ml. Et20 (an exothermic reaction occurred) and the solid collected gave 6.7 g. triethylenediammonium 2-(2-naphthylthio)-1indanyl peroxide (IV), m. 89-90°. The synthesis of IV was also accomplished in PhMe. IIa (1.1 g.) in 80 ml. PhMe treated with 1.8 g. IV (slowly), the mixture left 0.5 hr. and filtered, and the solid recrystd. gave 1.2 g. IIIa. 2-Naphthalenethiol (6.4 g.) in 50 ml. PhMe treated 0.5 hr. at room temperature with 7.3 g. IV gave 8.8 g. addition product (V) of 2-(2-naphthylthio)-1-indanol and di-2-naphthyl disulfide, m. 126-7°

(PhMe). IIIa (1.46 g.) and 1.6 g. di-2-naphthyl disulfide in 25 ml. PhMe heated, cooled to room temperature, and the crystals collected gave 2.5 g. V. A C6H6 solution (333 ml.) of 0.34 mole aromatic thiol, 0.11 mole I, and 0.01 mole of an alkylamine was oxygenated 6 hrs. at 22-8°. When benzenethiol and 2-naphthalenethiol were cooxidized with I in the presence of III, a yellow color developed. With 4-butylbenzenethiol, the mixture became dark yellow; with 4-toluenethiol and 4-chlorobenzenethiol, it became red and black, resp. When benzenethiol and I were cooxidized in the presence of mono-, di-, and tripropylamines, the formation of purple, green, and yellow colors were observed. After oxygenation, the C6H6 layer was decanted, the unchanged thiol removed from the C6H6 solution by washing with 5% KOH solution, the solvent distilled, and the residue fractionated to give 2-arylthio-1-indanols. The diaryl disulfides were too soluble in heptane and therefore were crystallized from MeOH. In the case of the 2-naphthalenethiol-I cooxidn., the reactant concns. were reduced to one-third, and C6H6 used as solvent of recrystn. because of the solubility of the addition compound of IIIa and di-2-naphthyl disulfide. The cooxidn. of IIa and I in the presence of III was also carried out on a 5 times larger scale in PhMe. After 6 hrs. of oxygenation, 58% of the thiol was oxidized and 4.4 g. of H2O separated By the extraction of the reaction mixture with 5% and the concentration of the extract, 7 g. III.HCl was isolated. Workup of the PhMe solution gave 20.5 g. IIIb. A heptane solution (333 ml.) of 73.3 q. dodecanethiol, 22.9 g. I, and 4.2 g. III was oxygenated at 24-6° and the product, m. 69-72°, isolated. In addition to the above, the following substituted 2-mercapto-1-indanols were prepared (substituent, m.p., and % yield given): 4-tolyl, 95.5-6.5°, 64; 4-butylphenyl,

104-5°, 39; 4-chlorophenyl, 113.5-14.5°, 35. 2-Arylthio-1-indanol (0.01 mole) in AcOH was treated slowly at 50° with 1.1 g. 33% H2O2, the mixture kept 0.5 hr. at 60°, the resulting 2-arylsulfinyl-1-indanol precipitated by addition of H2O, the solid collected,

and

HC1

recrystd. from alc. Most of the oxidation products were identified with one isomer of the substituted 2-sulfinyl-1-indanols from the cooxidn. of I with the corresponding thiol in the absence of amine as shown (thiol starting material, m.p. of the 2-sulfinyl-1-indanol obtained by H2O2 oxidation given): benzene, 147-8.5° (decomposition); toluene, 144-5.5° (decomposition); 4-chlorobenzene, 146.5-8.0° (decomposition); 2-naphthalene, 134.5-6.0°; dodecane, 80-1°. An AcOH solution of 0.01 mole of 2-arylthio-1-indanol was oxidized with 2.3 g. 33% H2O2 as described above; the work up of the mixture (after being heated 1 hr. at 80°) yielded the 2-arylsulfonyl-1-indanols given below. The following substituted 2-sulfinyl-and 2-sulfonylindanols were thus obtained (R and x of RSOx, m.p., and % yield given): 4-butylphenyl, 1, 154-6°, 63; 4-dodecyl, 1, 80-1°, 71; 4-tolyl, 2, 145-6.5°, 72; 4-butylphenyl, 2, 156-8°, 98; 4-chlorophenyl, 2, 151.5-4.0°, 95; dodecyl, 2, 93.5-4.5°, 97. Benzene solns. containing 0.15 mole/l. of benzenethiol and 0.05 mole/l. I were oxygenated in the presence of various concns. of III at room temperature After 6 hrs. of oxygenation, the following decrease in % mercaptan was observed (amine mole/1., % thiol oxidized given): nil, 41; 0.015, 14; 0.150, 48; 0.300, 47. Primene 81-R was added to heptane solns. containing benzenethiol, I, and 2,5-dimethylpyrrole, the test solns. (300 ml. each) were aerated 6 hrs. at room temperature, and the following observations were made (mole/1.

each

of benzenethiol, I, and 2,5-dimethylpyrrole, mole/l. Primene 81-R, % thiol oxidized, peroxide formed, color of solution, and precipitate in g./100 ml. given):

0.30, nil, 68, yes, red, 3.5 (red oil); 0.30, 0.03, 56, no, colorless, 1.3 (colorless crystals); 0.01, nil, 75, yes, red, 0.2 (red solid); 0.01, 0.001, 53, no, colorless, none.

IT93433-68-2, 1-Indanol, 2-(p-tolylthio)- 93434-18-5, 1-Indanol, 2-(p-tolylsulfinyl)- 93898-88-5, 1-Indanol,

RN 93434-18-5 CAPLUS CN 1-Indanol, 2-(p-tolylsulfinyl)- (6CI, 7CI) (CA INDEX NAME)

RN 93898-88-5 CAPLUS CN 1H-Inden-1-ol, 2,3-dihydro-2-(phenylthio)- (9CI) (CA INDEX NAME)

RN 94305-32-5 CAPLUS CN 1-Indanol, 2-(2-naphthylthio)- (7CI) (CA INDEX NAME)

RN 94384-90-4 CAPLUS CN 1-Indanol, 2-[(p-butylphenyl)thio]- (7CI) (CA INDEX NAME)

RN 95001-29-9 CAPLUS CN 1-Indanol, 2-(dodecylthio)- (7CI) (CA INDEX NAME)

RN 106682-74-0 CAPLUS
CN Hydroperoxide, 2-(2-naphthylthio)-1-indanyl, compd. with 1,4-diazabicyclo[2.2.2]octane (7CI) (CA INDEX NAME)

CM 1

CRN 970-61-6 CMF C19 H16 O2 S

CM 2

CRN 280-57-9 CMF C6 H12 N2



CM 1

CRN 94305-32-5 CMF C19 H16 O S

CM

5586-15-2 CRN CMF C20 H14 S2

L18 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1961:124710 CAPLUS

DOCUMENT NUMBER:

55:124710

ORIGINAL REFERENCE NO.:

55:23460b-i,23461a-c

TITLE:

Organic sulfur compounds. III. Cooxidation of

mercaptans with styrenes and indene

AUTHOR (S):

Oswald, Alexis A.

CORPORATE SOURCE:

Imp. Oil Ltd., Sarnia, Can.

SOURCE:

Journal of Organic Chemistry (1961), 26, 842-6

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE:

LANGUAGE:

Unavailable

Journal

For diagram(s), see printed CA Issue. AR cf. CA 54, 21005e. PhSH (I) (0.1 mole) and 0.1 mole PhCH:CH2 (II) [or PhCMe:CH2 (III) or indene (IV)] in 310 ml. cold n-C7H16 bubbled through with air via a sintered glass sparger 6 hrs. at 0° yielded 30, 52, and 33% oily peroxides containing 84, 44, and 67% hydroperoxide, according to both the iodide and FeSO4 methods. Similar aeration of p-ClC6H4SH and III yielded 64% peroxide containing 58% hydroperoxide. A 4-g. sample of liquid substituted 2-mercaptoethyl hydroperoxide kept 3 days at 20° and the solid product recrystd. from PhMe-C7H16 yielded the corresponding isomeric 2-sulfinylethanol rearrangement products, RSO-CH2CR'PhOH (V). A typical member of these new hydroperoxides was 1-(2-naphthylthio)-2-phenyl-2-propyl hydroperoxide (VI), m. - 10°, peroxide content 85%, obtained by cooxidn. of 2-HSC10H7 and III. Phys. data were listed for V [R, R', m.p. (uncor.), and infrared OH, SO (2), aromatic and CH2 absorption peaks given]: Ph, H, 128-9.5°, 2.95, 9.23 (9.55), 10.02, 6.3, 6.9; 2-C10H7, H, 145-7° (121-6°), 3 (3.05), 9.5 (9.45), 9.9 (9.9), 6.28 (6.28), 6.91 (6.91); C12H25, H, 105-6° (69-70°), 3 (3), 9.3 (9.3), 9.85 (9.85), 6.25 (6.25), 6.9 (6.9); 4-ClC6H4, H, 156.5-8.5° (86-8°), 2.96 (2.96), 9.19 (9.19), 9.94 (9.96), 6.35 (6.35), 6.95 (6.95); 2-C10H7, Me, 115-18° (94-95.5°), 3.05 (3), 9.4 (9.4), 9.95 (9.78), 6.28 (6.28), 6.85 (6.93); C12H25, Me, 47.5-8.5°, 2.95, 9.4, 10.05, 6.25, 6.85. Similar rearrangements were carried out in 0.3M C6H6 (CHCl3, tetrahydronaphthalene) solns. of hydroperoxides at 43° in 16 hrs. VI (3.1 g.) yielded 27% V (R = 2-C10H7, R' = H), m. 115-18°, bythis method. IV (11.6 g.) and 16 g. 2-C10H7SH in 100 ml. C6H6 and 300 ml. C7H16 aerated 4 hrs. at 0° yielded 4 g. crystalline 2-(2-naphthylthio)-1indanyl hydroperoxide (VII), m. 70° (decomposition), containing 98% peroxide. The filtrate aerated 6 hrs. at 0° and 42 hrs. at 20°, filtered, and the cooxidn. product (26 g., containing only 2% peroxide) recrystd. from C6H6-C7H16 gave the 2-(2-naphthylsulfinyl)-2-indanoisomers, C6H4.CH(OH).CH(SOR).CH2 (VIII, R = 2-C10H7) (IX), m. 157-8°, m. 149-50°, m. 138.5-9.5° (decomposition), m. 125-7.5° (decomposition) (infrared spectrum given for all). VII (9.2 g.) in 100 ml. C6H6 kept 16 hrs. at 43° gave a neg. peroxide test and deposited 36.8 g. crystals, m. 138.5-9.5° (C6H6), identical with an isomer of IX. VII stored 10 min. in a desiccator at 2 mm. over H2SO4 decomposed violently and the reddish product fractionally crystallized

C6H6 gave IX, m. 157-8° and 138.5-9.5°. IV (10.7 g.) and 12.8 q. 4-ClC6H4SH in 250 ml. C6H6 and 20 ml. PhCl at 0° aerated 4 hrs. and the fresh peroxide solution refluxed 1 hr. in Et20 with LiAlH4 yielded 68% 2-(4-chlorophenylthio)-1-indanol (X), m. 110-12°. VII (6.0 q.) in 600 ml. C6H6, 150 ml. CHCl3, and 20 ml. MeOH kept 3 days at 20° with 4.3 g. X gave unchanged X and IX, m. 157-8°, suggesting an intramol. rearrangement. However, the reactions of the hydroperoxide cooxidn. intermediate might involve radical intermediates as was suggested by the polymerization of II by VII. VII (0.3 q.) in 34.6 q. II kept 3 months at 5° gave only 75% recovered II on distillation at 100°/20 mm., whereas II kept alone under the same conditions was distilled with 99% recovery. Aliphatic hydrocarbon (C7H16, cetane, straight run petroleum distillate, b. 70-200°) (300 ml.) containing 0.1 mole thiol, p-RC6H4SH (R = H, Me, 4-ClC6H4, and II, III, or IV aerated (or oxygenated) 3 days at 20° to give a liquid phase with peroxide number and mercaptan number less than 5 and 10, resp., the residue on filtration recrystd. from Ph-Me-C7H16 to give 40-80% mixts. of isomeric substituted 2-sulfinyl ethanols, and the mixts. recrystd. gave (with about 30% yield loss) the isomeric VIII (R and m.p. given) (infrared spectra given): Ph, 158-9°; 148-50°, 132-5°; p-MeC6H4, 166-7.5°, 144-4.5°, 128-30°; p-ClC6H4, 144-6°; C12H25, 107-9°, 67-8.5°. C12H25SH (20.2 g.) and 0.1 mole II (III, IV) in 300 ml. C7H16 aerated in a Vycor (95% quartz) flask with ultraviolet irradiation (GE-9T64Y20 lamp, 250 v., 1000 w. at 4.5 cm.) with decrease to less than 10% thiol content, the mixture cooled (solid CO2-alc. bath), and the product recryst. gave 75% VIII (R = C12H25) isomers. Cooxidn. of C12H25SH with III and IV gave only 10% V (R = C12H25, R' = Me) and 31% VIII (R = C12H25), m. 107-9°. Cetane (300 ml.) containing 0.01 mole/l. 2-C10H7SH and 0.01 mole II (IV) kept in a 500 ml. open pyrex flask showed rapid peroxidn. followed by a decrease in peroxide content, though the components in cetane showed no peroxidn. After 70 and 23 hrs. the IV-thiol and II-thiol solns. gave some IX, m. 138.5-9.5° (decomposition), and V (R = 2-C10H7, R' = H), m. 145-7°. Cetane (300) ml.) containing 0.3 mole/l. mercaptans and II or IV kept 2 weeks in accelerated storage tests at 43° and the ppts. recrystd. from C6H6-C7H16 gave the corresponding VIII. Distillation of the mother liquors yielded about 200 mg. 2-indanyl Ph sulfide and 180 mg. 2-indanyl 4-tolyl sulfide, resp. The reported reactions may be important in causing hydrocarbon fuel instability.

RN 93434-18-5 CAPLUS

from

CN 1-Indanol, 2-(p-tolylsulfinyl)- (6CI, 7CI) (CA INDEX NAME)

970-61-6, Hydroperoxide, 2-(2-naphthylthio)-1-indanyl IT 93434-18-5, 1-Indanol, 2-p-tolylsulfinyl- 97636-30-1, 1-Indanol, 2-(p-chlorophenylthio)-(preparation of)

970-61-6 CAPLUS

RN Hydroperoxide, 2-(2-naphthylthio)-1-indanyl (6CI, 7CI, 8CI) (CA INDEX CN

93434-18-5 CAPLUS RN1-Indanol, 2-(p-tolylsulfinyl)- (6CI, 7CI) (CA INDEX NAME) CN

97636-30-1 CAPLUS RN1H-Inden-1-ol, 2-[(4-chlorophenyl)thio]-2,3-dihydro- (9CI) (CA INDEX CNNAME)

=>

Relative stereochemistry.

RN 155519-29-2 CAPLUS CN 1H-Inden-1-ol, 2,3-dihydro-1-methyl-2-(phenylsulfinyl)-,  $(1\alpha,2\alpha)$ - (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 155519-30-5 CAPLUS CN 1H-Indene, 3-methyl-2-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 14:11:33 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 988 TO ITERATE

100.0% PROCESSED 98

988 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS:

17875 TO 2164

PROJECTED ANSWERS:

0 TO

L2

0 SEA SSS SAM L1

=> s 11 full

FULL SEARCH INITIATED 14:11:37 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 19855 TO ITERATE

100.0% PROCESSED 19855 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

L3

2 SEA SSS FUL L1

=> d 1-2

L3 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN

RN 501083-94-9 REGISTRY

CN 1H-Inden-1-ol, 5-chloro-2-fluoro-2,3-dihydro-2-(methylsulfonyl)-1-(trifluoromethyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C11 H9 Cl F4 O3 S

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN

RN 501083-93-8 REGISTRY

CN 1H-Inden-1-ol, 5-chloro-2-fluoro-2,3-dihydro-1-methyl-2-(methylsulfonyl)-(9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C11 H12 Cl F 03 S

SR CA

LC STN Files: CA, CAPLUS, USPATZ, USPATFULL

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE ENTRY

TOTAL SESSION

FULL ESTIMATED COST

158.96

159.17

FILE 'CAPLUS' ENTERED AT 14:12:01 ON 27 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 27 Apr 2004 VOL 140 ISS 18 FILE LAST UPDATED: 26 Apr 2004 (20040426/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4

2 L3

=> d ibib abs hitstr 1-2

L4 ANSWER 1 OF 2 . CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

·2003:202615 CAPLUS

DOCUMENT NUMBER:

138:237904

TITLE:

Preparation of indan-1-ols as appetite depressants

INVENTOR(S):

Jaehne, Gerhard; Krone, Volker; Bickel, Martin;

Gossel, Matthias

CODEN: PIXXD2

PATENT ASSIGNEE(S):

Aventis Pharma Deutschland GmbH, Germany

SOURCE:

PCT Int. Appl., 45 pp.

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                                           APPLICATION NO.
                                           _____
     WO 2003020693
                       A1
                            20030313
                                           WO 2002-EP9201
                                                             20020817
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
     DE 10142661
                            20030327
                                           DE 2001-10142661 20010831
                       Α1
     US 2003105145
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                            20030605
                                           US 2002-231362
                                                            20020830
     US 6670401
                       B2
                            20031230
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PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
                         MARPAT 138:237904
GΙ
```

$$R^4$$
  $R^8$   $O-R^7$   $R^6$   $X-Y-R^5$   $C1$   $SO_2-Me$ 

III

Title compds. I [R1, R2, R3, R4 = H, halo, CN, etc.; X = S, SO, SO2; Y = (CH2)p; p = 0-3; R5 = alkyl, cycloalkyl, (CH2)1-6CO2H, etc.; R6 = (CH2)0-6R9, (CH2)0-6CO2H, (CH2)0-6CONH2, etc.; R7 = (CH2)0-4R12, H, alkyl, etc.; R8 = (CH2)0-4R14, alkyl, cycloalkyl, etc.; R9, R12, R14 = Ph, 1-naphthyl, 2-naphthyl, etc.] and their pharmaceutically acceptable salts were prepared For example, MeMgBr carbonyl addition to indanone II, e.g., prepared from 2-bromo-5-chloroindan-1-one in 3-steps, provided indanol III. In milk consumption studies with female NMRI mice, indanol III exhibited very good anorectic effects, i.e., 25% decrease in milk consumption verses control.

IT 501083-93-8P 501083-94-9P

RN

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of indanols as appetite depressants) 501083-93-8 CAPLUS

CN 1H-Inden-1-ol, 5-chloro-2-fluoro-2,3-dihydro-1-methyl-2-(methylsulfonyl)-(9CI) (CA INDEX NAME)

RN 501083-94-9 CAPLUS

CN 1H-Inden-1-ol, 5-chloro-2-fluoro-2,3-dihydro-2-(methylsulfonyl)-1-(trifluoromethyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

5

ACCESSION NUMBER:

2003:202458 CAPLUS

DOCUMENT NUMBER:

138:221359

TITLE:

Preparation of indan-1-ols for producing drugs for the

prophylaxis or treatment of obesity

INVENTOR (S):

Jaehne, Gerhard; Krone, Volker; Bickel, Martin;

Gossel, Matthias

PATENT ASSIGNEE(S):

Aventis Pharma Deutschland G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 47 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	KIND DATE						PPLI	CATI	ON No	Э.	DATE								
WO	WO 2003020255				A1 20030313					WO 2002-EP9200 20020817									
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,		
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
		GM,	HR,	HU,	ID,	ΙL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,		
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,		
		ΡL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,		
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	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	BG,		
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		NE,	SN,	TD,	TG														
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US	2003	1303	23	A	1	2003	0710	US 2002-230353					3	20020829					
US	6686	397	•	B:	2	2004	0203												
PRIORIT	Y APP	LN.	INFO	. :				]	DE 20	001-	1014:	2659	Α	2001	0831				
OTHER S	OURCE	(S):			MAR	PAT	138:2	2213	59										
GI																			

=>

Uploading C:\Program Files\Stnexp\Queries\10692735.str

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10 11 12 13
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
7-10 8-11 11-12 12-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9
exact/norm bonds :
5-7 6-9 7-8 7-10 8-9 8-11 12-13
exact bonds :
11-12
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

G1:Cy,Ak

L1

Connectivity:

11:2 E exact RC ring/chain

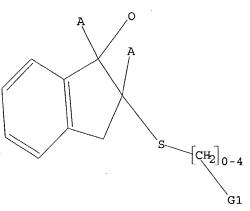
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS

11:CLASS 12:CLASS 13:CLASS

# STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR



G1 Cy,Ak

$$R^{3}$$
 $R^{2}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{6}$ 
 $R^{6}$ 
 $R^{6}$ 
 $R^{7}$ 
 $R^{6}$ 

Ι

Title compds. [I; R1-R4 = H, F, Cl, Br, I, cyano, N3, N02, OH, alkoxy, cycloalkoxy, benzyloxy, phenoxy, alkylcarbonyloxy, etc.; or R2R3 = OCH2O; X = S, SO, SO2; Y = (CH2)p; p = 0-3; R5 = (fluorinated) alkyl, cycloalkyl, etc.; R6 = (substituted) alkyl, et.; R7 = H, (substituted) alkyl, cycloalkyl, etc.; R8 = (substituted) alkyl, cycloalkyl], were prepd for producing a drug for body weight loss of mammals. Thus, 5-chloro-2-fluoro-2-methanesulfonylindan-1-one (preparation given) in THF was dropwise treated with MeMgBr in Et2O followed by stirring for 3 h at 50°, further addition of MeMgBr, and stirring for 1h at room temperature to give 5-chloro-2-fluoro-2-methanesulfonyl-1-methylindan-1-ol. The latter at 30 mg/kg i.p. was applied in female NMRI mice and gave 25% reduction of milk consumption of the treated mice.

IT 501083-93-8P 501083-94-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indanols for producing drugs for the prophylaxis or treatment of obesity)

RN 501083-93-8 CAPLUS

CN 1H-Inden-1-ol, 5-chloro-2-fluoro-2,3-dihydro-1-methyl-2-(methylsulfonyl)-(9CI) (CA INDEX NAME)

RN 501083-94-9 CAPLUS

CN 1H-Inden-1-ol, 5-chloro-2-fluoro-2,3-dihydro-2-(methylsulfonyl)-1-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Cl} & \overset{F}{\downarrow} & \overset{O}{\downarrow} \\ & \overset{S-\text{Me}}{\downarrow} \\ \text{OH} & \overset{O}{\downarrow} \end{array}$$

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> s 13
```

1.4

1 L3

=> d ibib abs hitstr 1-3

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1994:409577 CAPLUS

DOCUMENT NUMBER:

121:9577

TITLE:

Reactions of  $\eta^2$ -(2-acylaryl-

C,0)tetracarbonylmanganese(I) complexes with some

vinyl sulfur compounds

AUTHOR (S):

Cambie, Richard C.; Rutledge, Peter S.; Welch, David

R.; Woodgate, Paul D.

CORPORATE SOURCE:

Department of Chemistry, University of Auckland,

Private Bag 92019, Auckland, N. Z.

SOURCE:

Journal of Organometallic Chemistry (1994), 467(2),

237-44

CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 121:9577

The thermally promoted reactions of some Ph and diterpenoid n2-(2-acylaryl-C,0)tetracarbonylmanganese(I) complexes with Ph vinyl sulfone, Me vinyl sulfone, or Ph vinyl sulfoxide, have been investigated. The major products from the diterpenoid complexes arises from insertion followed by reductive demetalation; cyclopenta-annulation, when it occurs, is a minor process. Liberation of the metal-free adducts from their Mn-containing precursors requires treatment with either acid or photolysis-oxidation

IT 155519-26-9P 155519-27-0P 155519-28-1P

155519-29-2P 155519-30-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 155519-26-9 CAPLUS

CN 1H-Inden-1-ol, 2,3-dihydro-1-methyl-2-(phenylsulfonyl)-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 155519-27-0 CAPLUS

CN 1H-Inden-1-ol, 2,3-dihydro-1-methyl-2-(phenylsulfonyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 155519-28-1 CAPLUS CN 1H-Inden-1-ol, 2,3-dihydro-1-methyl-2-(phenylsulfinyl)-,  $(1\alpha,2\beta)$ - (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 155519-29-2 CAPLUS CN 1H-Inden-1-ol, 2,3-dihydro-1-methyl-2-(phenylsulfinyl)-,  $(1\alpha,2\alpha)$ - (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 155519-30-5 CAPLUS CN 1H-Indene, 3-methyl-2-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

=>